

### REMARKS

Fifty claims were originally filed in the present Application. Claims 1-50 currently stand rejected. Claims 1, 5, 25, and 29 are amended, and claims 6 and 30 are canceled herein. Reconsideration of the Application in view of the foregoing amendments and the following remarks is respectfully requested.

### Specification

In paragraph 2 of the Office Action, the Examiner objects to the specification because of “improper incorporations by reference to 3 non-patent documents on pages 8, 10, and 13.” The Examiner further states that “[t]hey are over 10 years old . . . and, as such, are admitted prior art.” With regard to these foregoing objections to the specification, the Applicants respectfully request to defer making any appropriate response to the Examiner’s objections until such time as one or more claims have been allowed in the present Application.

### 35 U.S.C. § 103

In paragraph 4 of the Office Action, the Examiner rejects claims 1-50 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,316,712 to Kao et al. (hereafter Kao) in view of U.S. Patent No. 5,715,367 to Gillick et al. (hereafter Gillick). The Applicants respectfully traverse these rejections for at least the following reasons.

Applicants maintain that the Examiner has failed to make a *prima facie* case of obviousness under 35 U.S.C. § 103(a) which requires that three basic criteria must be met, as set forth in M.P.E.P. §2142:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

The initial burden is therefore on the Examiner to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Applicants respectfully traverse the Examiner's assertion that modification of the device of Kao according to the teachings of Gillick would produce the claimed invention. Applicants submit that Kao in combination with Gillick fail to teach a substantial number of the claimed elements of the present invention. Furthermore, Applicants also submit that neither Kao nor Gillick contain teachings for combining the cited references to produce the Applicants' claimed invention. The Applicants therefore respectfully submit that the obviousness rejections under 35 U.S.C §103 are improper.

Regarding the Examiner's rejection of independent claims 1 and 25, Applicants respond to the Examiner's §103 rejection as if applied to amended independent claims 1 and 25. For example, independent claim 1 is now amended to recite an "*transformation rules applied to said enhanced phone set to produce a*

*transformed phone dataset, said transformed phone dataset being used in building a phonetic dictionary,”* which are limitations that are not taught or suggested either by the cited references, or by the Examiner’s citations thereto. Applicants submit that the foregoing amendments are supported by claims 6 and 30, as originally filed, and therefore do not necessitate a new search.

The cited reference by Kao essentially teaches “clustering triphones that are acoustically close together” in which the “clustering process includes using a decision tree . . . .” (see Abstract). The Examiner states that “Gillick shows some transcription symbols in columns 28-29”, and then concludes “that “transcription” as claimed is obvious to affect recognition . . . .”

Applicants respectfully submit that neither cited reference discusses or teaches techniques for performing the specific type of “transcription” taught by Applicants. Furthermore, Applicants also submit that neither cited reference discloses making a transcription by utilizing an *“enhanced phone set that includes acoustic-phonetic symbols and connectors for extending said enhanced phone set”*, as now recited in amended claims 1 and 25. Applicants therefore submit that the rejections of amended claims 1 and 25 are improper.

With regard to claim 49, “means-plus-function” language is utilized to recite elements and functionality similar to those recited in claims 1 and 25 which are discussed above. Applicants therefore incorporate those remarks by reference with regard to claim 49. In addition, the Courts have frequently held that “means-plus-function” language, such as that of claim 49, should be construed in light of the Specification.

More specifically, means-plus-function claim elements should be *construed to cover the corresponding structure, material or acts described in the specification*, and equivalents thereof. Applicants respectfully submit that, in light of the substantial differences between the cited references and Applicants' invention as disclosed in the Specification, claim 49 is therefore not anticipated or made obvious by the teachings of Kao in combination with Gillick.

Regarding the Examiner's rejection of dependent claims 2-24 and 26-48, for at least the reasons that these claims are directly or indirectly dependent from respective independent claims whose limitations are not identically taught or suggested, the limitations of these dependent claims, when viewed through or in combination with the limitations of the respective independent claims, are also not identically taught or suggested. Applicants therefore respectfully request reconsideration and allowance of dependent claims 2-24 and 26-48 so that these claims may issue in a timely manner.

With regard to the Examiner's rejection of claim 2, Applicants submit that, unlike the present invention, the cited FIG. 3 of Kao is directed towards manipulating "*triphone models*" (column 3, lines 28-45), and therefore is not appropriately analogized to Applicants' invention.

Regarding the rejections of claims 4-7, the Examiner only discusses a "phonetic dictionary" and a "TIMIT database" from claims 4 and 7, respectively. However, in claims 5 and 6, the significant limitations of "transformation rules" that are used "to produce a transformed phone dataset" are not addressed by the

Examiner. Applicants submit that these limitations are not taught by the cited references.

In the rejections of claims 8 and 20,, the Examiner states that “[t]hese are obvious representations of phones” as support for the rejections with only references to “R-coloring” for support. Similarly, in the rejections of claims 9-19, the Examiner states that “applicant fails to teach any new, unobvious phonetic representation of speech” without providing any specific references for support.

It appears that the Examiner is utilizing Official Notice without expressly stating so. Applicants therefore respectfully request the Examiner to cite specific references in support of these rejections, and failing to do so, to reconsider and withdraw the rejections of claims 8-20 so that the present Application may issue in a timely manner.

Furthermore, the Court of Appeals for the Federal Circuit has held that “obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination.” In re Geiger, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987).

Applicants submit that the cited references, in combination with the Official Notice, do not suggest a combination that would result in Applicants’ invention, and therefore the obviousness rejections under 35 U.S.C §103 are improper. Applicants therefore respectfully request the Examiner to cite references in support of the Official Notice, and to also indicate where an explicit teaching to combine the cited reference may be found. Alternately, the Applicants request

that the Examiner reconsider and withdraw the rejections of claims 8-20 under 35 U.S.C §103.

Applicants also submit that claims 21-24 contain a substantial number of patentable elements and functionalities. For example, claims 21-24 recite limitations relating to various types of “transformation rules” including a “merge-type”, a “split-type”, a “replace-type”, and a “change in context-type”.

For at least the foregoing reasons, the Applicants submit that claims 1-50 are not unpatentable under 35 U.S.C. § 103 over Kao in view of Gillick, and that the rejections under 35 U.S.C. § 103 are thus improper. The Applicants therefore respectfully request reconsideration and withdrawal of the rejections of claims 1-50 under 35 U.S.C. § 103.

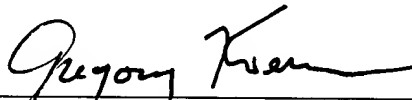
### Summary

Applicants submit that the foregoing amendments and remarks overcome the Examiner's rejections under 35 U.S.C. §103(a). Because the cited references, or the Examiner's citations thereto, do not teach or suggest the claimed invention, and in light of the differences between the claimed invention and the cited prior art, Applicants therefore submit that the claimed invention is patentable over the cited art, and respectfully request the Examiner to allow claims 1-50 so that the present Application may issue in a timely manner.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made." If there are any questions concerning this amendment, the Examiner is invited to contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,

Date: 5/21/03

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Version With Markings To Show Changes Made

In The Claims:

1. (Twice Amended) A system for speech processing, comprising:  
speech data generated from one or more speech sources;  
an enhanced phone set that includes acoustic-phonetic symbols and  
connectors for extending said enhanced phone set; [and]  
a transcription generated by a transcription process that selects appropriate  
phones from said enhanced phone set to represent said speech data;  
and  
transformation rules applied to said enhanced phone set to produce a  
transformed phone dataset, said transformed phone dataset being used  
in building a phonetic dictionary.
5. (Once Amended) The system of claim 2, [further comprising] wherein said  
transformation rules are applied to said phone dataset to produce said transformed  
phone dataset, said transformed phone dataset being for use in training a speech  
recognizer.

Please cancel dependent claim 6.



25. (Twice Amended) A method for speech processing, comprising the steps of:  
generating speech data from one or more speech sources;  
providing an enhanced phone set that includes acoustic-phonetic symbols and  
connectors for extending said enhanced phone set; [and]  
producing a transcription using a transcription process that selects  
appropriate phones from said enhanced phone set to represent said  
speech data; and  
applying transformation rules to said enhanced phone set to produce a  
transformed phone dataset, said transformed phone dataset being used  
in building a phonetic dictionary.

29. (Once Amended) The method of claim 26, further comprising the step of  
applying said transformation rules to said phone dataset to produce said  
transformed phone dataset, said transformed phone dataset being for use in  
training a speech recognizer.

Please cancel claim 30.